STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 112891

TO:	From:
Sheridan Snedden Location: REM/3B76 Art Unit: 1653 January 28, 2004 Case Serial Number: 09/889519	P. Sheppard Location: Remsen Building Phone: (571) 272-2529 sheppard@uspto.gov

Search Notes

1/2891

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

SEARCH REQUEST FORM

79298

Requestor's Name: Sheridan Snedden

Serial Number: 09/889,519 (371)

Date: 1/28/2004 Phone: 2-0959 Art Unit: 1653

RM REM 3876

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

Please search Compounds (II) and (IV) where R_5 is

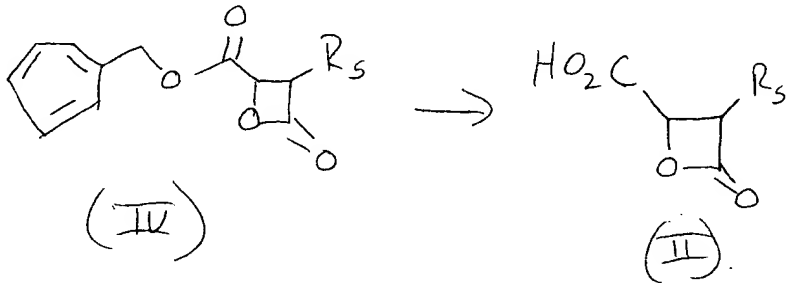
R_5 : (1) sec-butyl

(2) alkyl, substituted or unsubstituted

(3) alkenyl, " or "

(4) aralkyl, " or "

(5) -H



(IV) (II)

See also attached sheet

STAFF USE ONLY

Date completed: 1/28/04

Searcher: Shepperd

Terminal time: _____

Elapsed time: _____

CPU time: _____

Total time: _____

Number of Searches: _____

Number of Databases: _____

Search Site

_____ STIC

_____ CM-1

_____ Pre-S

Type of Search

_____ N.A. Sequence

_____ A.A. Sequence

_____ Structure

_____ Bibliographic

Vendors

_____ IG Suite

_____ STN

_____ Dialog

_____ APS

_____ Geninfo

_____ SDC

_____ DARC/Questel

_____ Other

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 15:41:15 ON 28 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 28 Jan 2004 VOL 140 ISS 5
FILE LAST UPDATED: 27 Jan 2004 (20040127/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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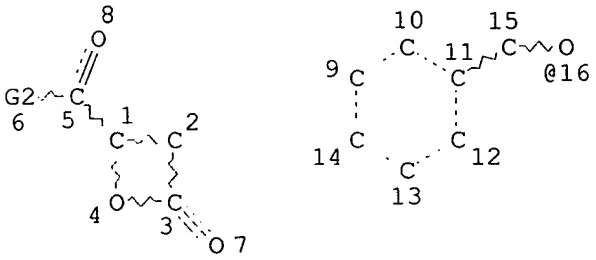
L3 STR



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DEFAULT ECLEVEL IS LIMITED

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RSPEC I
NUMBER OF NODES IS 16

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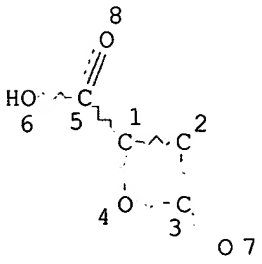
L7 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE
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L9 52 SEA FILE=REGISTRY ABB=ON PLU=ON L5 NOT L8
L10 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L8
L11 67 SEA FILE=HCAPLUS ABB=ON PLU=ON L9
L12 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND L11

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=> d ibib abs hitrn l12 1-8

L12 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:640602 HCAPLUS
DOCUMENT NUMBER: 137:353339
TITLE: Influence of structural parameters on the ring-opening polymerization of new alkyl malolactonate monomers and on the biocompatibility of polymers therefrom
AUTHOR(S): Bizzarri, Ranieri; Chiellini, Federica; Ober, Chris K.; Saltzman, W. Mark; Solaro, Roberto
CORPORATE SOURCE: Department of Chemistry and Industrial Chemistry, University of Pisa, Pisa, 56126, Italy
SOURCE: Macromolecular Chemistry and Physics (2002), 203(10/11), 1684-1693
CODEN: MCHPES; ISSN: 1022-1352
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The geometry of several alkyl malolactonate monomers was investigated by NMR and semiempirical computational methods. The results obtained by both techniques indicated that the geometry of the malolactone ring is almost independent of the nature of the side ester group. 13C NMR anal. of the polymer backbone stereochem. ruled out the occurrence of stereoelective processes in the polymn. of racemic monomers. The obsd. influence of the bulkiness of the alkyl group on the polymn. rate was therefore attributed to steric interactions between this group and the polymer growing end. Preliminary in-vitro investigation of cell adhesion and proliferation on the surface of homopolymers and copolymers of the investigated alkyl malolactonates suggested a possible correlation between polymer hydrophobicity and biocompatibility.
IT **76653-40-2P 182230-36-0P 404568-03-2P 404568-04-3P 404568-05-4P 404568-06-5P**
RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(investigation of structural parameters of alkyl malolactonate monomers and effect of monomer structure on their ring-opening polymn. on the biocompatibility of polymers therefrom)
IT **76652-44-3 90730-97-5**
RL: PRP (Properties)
(monomer; investigation of structural parameters of alkyl malolactonate monomers and effect of monomer structure on their ring-opening polymn. on the biocompatibility of polymers therefrom)
REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:672254 HCAPLUS
DOCUMENT NUMBER: 134:197932
TITLE: Poly(.beta.-malic acid) homo- and copolymers synthesis and their use for the preparation of nanoparticles
AUTHOR(S): Cammas-Marion, S.; Escalup, R.; Gref, R.; Provost, L.; Guerin, P.; Ponchel, G.
CORPORATE SOURCE: Laboratoire de Recherche sur les polymeres, UMR CNRS C7581, Universite Paris Valde Marne, Thiais, 94230, Fr.
SOURCE: Proceedings of the International Symposium on Controlled Release of Bioactive Materials (2000), 27th, 650-651
CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER: Controlled Release Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polyesters of poly(.beta.-malic acid alkyl esters) were prepd. and nanoparticles prepd. from them. High drug loading of halofantrine in the polyester nanoparticles was achieved.
IT **76653-40-2P 327604-90-0P 327614-59-5P**
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(poly(.beta.-malic acid) homo- and copolymers synthesis and their use for the prepn. of nanoparticles)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:513497 HCAPLUS
DOCUMENT NUMBER: 133:120677
TITLE: Preparation of UCK 14A2 derivatives as proteasome inhibitors
INVENTOR(S): Yamaguchi, Hiroyuki; Asai, Akira; Mizukami, Tamio; Yamashita, Yoshinori; Akinaga, Shiro; Ikeda, Shun-ichi; Kanda, Yutaka
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

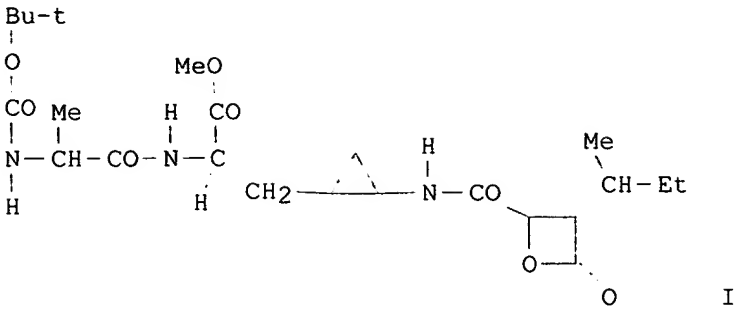
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000043000	A1	20000727	WO 2000-JP247	20000120
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2359561	AA	20000727	CA 2000-2359561	20000120
EP 1166781	A1	20020102	EP 2000-900834	20000120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: JP 1999-12391 A 19990120
JP 1999-288539 A 19991008

WO 2000-JP247 W 20000120

OTHER SOURCE(S): MARPAT 133:120677

GI



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AB The title compds. R1(A)p(CH2)nX1(CH2)mX2COCH(OR3)CH(R5)COR4 [A = CHR2; m and n are each independently an integer of 0 to 10; p is 0 or 1; R1 is hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted cycloalkyl, or the like; and R2 is hydrogen, COR13, etc.; further details on R1 and R2 are given; R13 is hydroxy, substituted or unsubstituted alkoxy, etc.; X1 is a bond, substituted or unsubstituted alkylene, substituted or unsubstituted cycloalkylene, etc.; X2 is oxygen, sulfur, etc. ; R3 is hydrogen, substituted or unsubstituted alkyl, etc. ; and R4 is hydroxyl, mercapto, substituted or unsubstituted alkoxy, etc., or R3 and R4 together represent a bond; and R5 is hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, etc.] are prepd. The title compd. I in vitro showed IC50 of 0.05 .mu.M against proteasome. Formulations are given.

IT **284484-00-0P 284484-01-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of UCK 14A2 derivs. as proteasome inhibitors)

IT **177019-47-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of UCK 14A2 derivs. as proteasome inhibitors)

IT **284484-25-9P 284484-28-2P 284484-29-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of UCK 14A2 derivs. as proteasome inhibitors)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:698876 HCAPLUS

DOCUMENT NUMBER: 130:38756

TITLE: Synthesis and polymerization of benzyl (3R,4R)-3-Methylmalolactonate via enzymic preparation of the chiral precursor

AUTHOR(S): Bear, Marie-Maud; Monne, Claire; Robic, Daniel; Campion, Genevieve; Langlois, Valerie; Rimbault, Alain; Bourbouze, Richard; Guerin, Philippe

CORPORATE SOURCE: Laboratoire de Physico-Chimie des Biopolymeres, UMR 27 CNRS-Universite Paris XII, Thiais, F-94320, Fr.

SOURCE: Chirality (1998), 10(8), 727-733
CODEN: CHRLEP; ISSN: 0899-0042

PUBLISHER: Wiley-Liss, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB .beta.-Methylaspartate ammonia-lyase, EC 4.3.1.2, (.beta.-methylaspartase) from Clostridium tetanomorphum was used to produce a 40/60 molar ratio of (2S,3R)- and (2S,3S)-3-methylaspartic acids, 2a2a and 2b, resp., from mesaconic acid 1 as substrate, on a large scale. To prep. (3R,4R)-3-methyl-4-(benzyloxycarbonyl)-2-oxetanone (benzyl 3-methylmalolactonate) 6, 2a and 2b were transformed, in the first step, into 2-bromo-3-methylsuccinic acids 3a and 3b and sepd. After three further steps, (2S,3S)-3a yielded the .alpha.,.beta.-substituted .beta.-lactone (3R,4R) 6 with a very high diastereoisomeric excess (>95% by chiral gas chromatog.). The corresponding cryst. polymer, poly[benzyl .beta.-(2R,3S)-3-methylmalate] 8, prepd. by an anionic ring opening polymn., was highly isotactic as detd. by 13C NMR. Catalytic hydrogenolysis of lactone 6 yielded (3R,4R)-3-methyl-4-carboxy-2-oxetanone (3-methylmalolactonic acid) 7, to which reactive, chiral, or bioactive mols. can be attached through ester bonds leading to polymers with possible therapeutic applications. Because of the ability of .beta.-methylaspartase to catalyze both syn- and anti-elimination of ammonia from (2S,3RS)-3-methylaspartic acid 2ab at different rates, the (2S,3R)-stereoisomer 2a was retained and isolated for further reactions. These results permit the use of the chemoenzymic route for the prepn. of both optically active and racemic polymers of 3-methylmalic acid with well-defined enantiomeric and diastereoisomeric compns.

IT **216576-94-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of; by catalytic hydrogenolyis of benzyl (3R,4R)-3-methylmalolactonate)

IT **197010-19-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and polymn. of benzyl (3R,4R)-3-Methylmalolactonate via enzymic prepn. of chiral precursor)

IT **216576-95-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and polymn. of benzyl (3R,4R)-3-methylmalolactonate via enzymic prepn. of chiral precursor)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:379482 HCAPLUS
DOCUMENT NUMBER: 127:81855
TITLE: Polymers of malic acid conjugated with the 1-adamantyl moiety as lipophilic pendant group
AUTHOR(S): Moine, Laurence; Cammas, Sandrine; Amiel, Catherine; Guerin, Philippe; Sebille, Bernard
CORPORATE SOURCE: Laboratoire de Physico-Chimie des Biopolymeres, UMR 27 CNRS, Universite Paris XII, Thiais, 94320, Fr.
SOURCE: Polymer (1997), 38(12), 3121-3127
CODEN: POLMAG; ISSN: 0032-3861
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Ethyladamantyl malolactonate and butyladamantanamide malolactonate were prepd., starting from malic acid, following the usual synthesis route described for different malolactonic acid esters. Despite the steric hindrance of both adamantyl groups, the three-step synthesis led to the corresponding lactones with a quite good yield and high purity. Otherwise, ethyladamantyl malolactonate has been obtained by chem. modification of the lateral carboxylic acid function of malolactonic acid. Both ethyladamantyl malolactonate and butyladamantanamide malolactonate were homopolymd. by anionic ring opening polymn. using tetramethylammonium benzoate as initiator. Expected high mol. wt. homopolymers were obtained and characterized by 1H NMR and size exclusion chromatog. Furthermore, ethyladamantyl malolactonate was copolymd. with benzyl malolactonate in

the molar ratio 5/95. After deprotection of the benzyl protecting groups by catalytic hydrogenolysis, the corresponding poly(.beta.-malic acid-co-ethyladamantyl .beta.-malate) displays a water soly.

IT **90730-97-5**, Malolactonic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of polymers of malic acid conjugated with the 1-adamantyl moiety as lipophilic pendant group)

IT **191938-08-6DP**, deprotected **191938-08-6P**, Benzyl malolactonate-Ethyladamantyl malolcatonate copolymer
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of polymers of malic acid conjugated with the 1-adamantyl moiety as lipophilic pendant group)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:201873 HCAPLUS
DOCUMENT NUMBER: 124:344800
TITLE: 4-Carboxy-2-oxetanone as a new chiral precursor in the preparation of functionalized racemic or optically active poly(malic acid) derivatives
AUTHOR(S): Leboucher-Durand, Marie-Agnes; Langlois, Valerie; Guerin, Philippe
CORPORATE SOURCE: Lab. Physico-Chimie Biopolymeres, Univ. Paris XII, Thiais, F-94320, Fr.
SOURCE: Polymer Bulletin (Berlin) (1996), 36(1), 35-41
CODEN: POBUDR; ISSN: 0170-0839
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Racemic and optically active 4-carboxy-2-oxetanones were prepd., starting from racemic (R)-4-benzyloxycarbonyl-2-oxetanone by catalytic hydrogenolysis of the lateral benzyl protecting group. This new .beta.-substituted-.beta.-lactone (malolactonic acid), which was considered as totally unstable due to the presence of a carboxyl group, was isolated, characterized, and prepd. in large quantities. Coupling reaction of the liberated -COOH was exemplified by using 2,4,5-trichlorophenol as activating agent and chloramphenicol as bioactive mol., which were bound to malolactonic acid and then copolymd. by anionic ring opening polymn. in the presence of 4-benzyloxycarbonyl-2-oxetanone. This new route conducts to activated derivs. of poly(malic acid) and polymeric drug carriers patterns.

IT **176903-10-9P 176903-12-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(carboxyoxetanone as chiral precursor in prepn. of functionalized racemic or optically active malic acid copolymers)

IT **76652-44-3 99494-21-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(carboxyoxetanone as chiral precursor in prepn. of functionalized racemic or optically active malic acid copolymers)

IT **177019-47-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(carboxyoxetanone as chiral precursor in prepn. of functionalized racemic or optically active malic acid copolymers)

IT **90730-97-5P**, Malolactonic acid
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; carboxyoxetanone as chiral precursor in prepn. of functionalized racemic or optically active malic acid copolymers)

L12 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:21770 HCAPLUS
DOCUMENT NUMBER: 116:21770

TITLE: Selective INEPT as an NMR tool for studying repeat unit distribution and stereosequences in poly(.beta.-malic acid) copolymers
AUTHOR(S): Guerin, P.; Girault, J. P.; Caron, A.; Francillette, J.; Vert, M.
CORPORATE SOURCE: Lab. Chim. Biol. Macromol., Univ. Rennes I, Rennes, 35700, Fr.
SOURCE: Macromolecules (1992), 25(1), 143-8
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A 1-dimensional NMR technique, namely selective INEPT for selective insensitive nuclear enhancement by polarization transfer, recently developed for spectral assignment and structural characterization of org. compds., was used for peak assignments in poly(.beta.-malic acid) which was methylated or partially esterified with benzyl alc. then methylated, or partially or totally hydrogenated poly(benzyl .beta.-malate) (I). By comparing the carbonyl NMR resonances of copolymers with different comonomer sequence distributions, it is confirmed that partially hydrogenated I were block copolymers. Selective INEPT NMR was also used to assign carbonyl C atom resonances of optically active stereocopolymers of L-(S)- and D-(R)-benzyl malolactonates. Therefore, selective INEPT, which was used for the 1st time to make peak assignments in copolymers and stereocopolymers, appeared to be a fruitful means of analyzing comonomer sequence distribution provided that repeating units were sensitive to closest neighbors.
IT **88928-81-8DP**, hydrogenated, esterified with benzyl alc. or methylated **97332-00-8DP**, methylated or partially benzylated **137257-54-6P**
RL: PREP (Preparation)
(prepn. and selective polarization-transfer NMR study of structure of)

L12 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1985:437799 HCAPLUS
DOCUMENT NUMBER: 103:37799
TITLE: Preparation and properties of poly beta-(L-malic acid) and its benzyl ester: functional polyesters of potential biomedical importance
AUTHOR(S): Wojcik, Ronald Thomas
CORPORATE SOURCE: Univ. Massachusetts, Amherst, MA, USA
SOURCE: (1984) 382 pp. Avail.: Univ. Microfilms Int., Order No. DA8500149
From: Diss. Abstr. Int. B 1985, 45(10), 3248
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable
IT **76653-40-2P 97332-00-8P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and properties of, as potential biomedical material)

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E1 THROUGH E26 ASSIGNED

=> fil reg
FILE 'REGISTRY' ENTERED AT 15:41:49 ON 28 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6
DICTIONARY FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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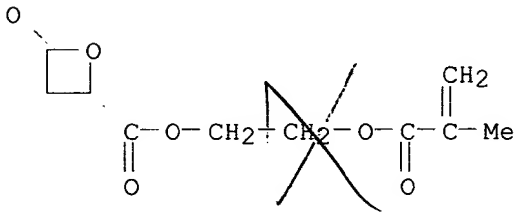
=> d ide can l13 1-26

L13 ANSWER 1 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **404568-06-5** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA-INDEX NAME)
MF (C11 H10 O4 . C10 H12 O6)x
CI PMS
PCT Polyacrylic, Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 404567-92-6
CMF C10 H12 O6



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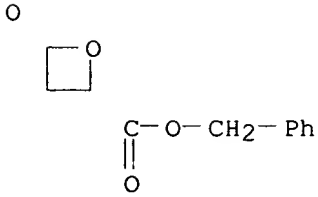
CRN 76652-44-3
CMF C11 H10 O4



2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

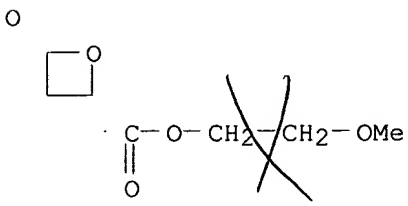
REFERENCE 1: 137:353339

REFERENCE 2: 136:263566

L13 ANSWER 2 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **404568-05-4** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-methoxyethyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
MF (C11 H10 O4 . C7 H10 O5)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 404567-91-5
CMF C7 H10 O5



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CRN 76652-44-3
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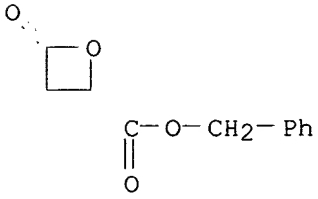


2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:353339 262

REFERENCE 2: 136:263566

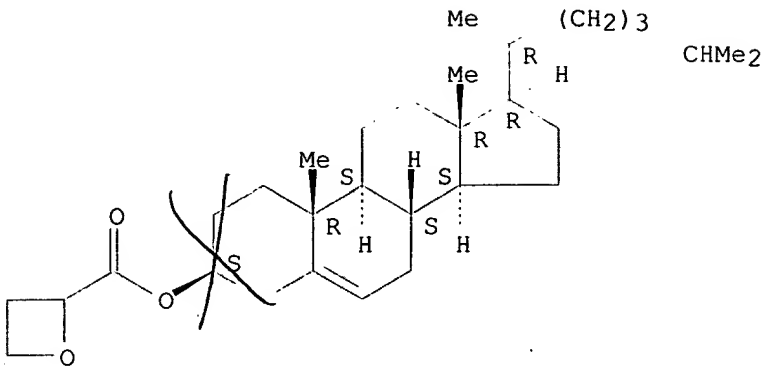
L13 ANSWER 3 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **404568-04-3** REGISTRY
CN Cholest-5-en-3-ol (3.beta.)-, 4-oxo-2-oxetanecarboxylate, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF (C31 H48 O4 . C11 H10 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 404567-90-4
CMF C31 H48 O4

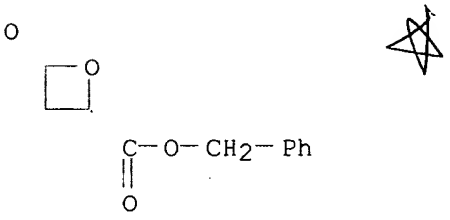
Absolute stereochemistry.



O

CM 2

CRN 76652-44-3
CMF C11 H10 O4



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

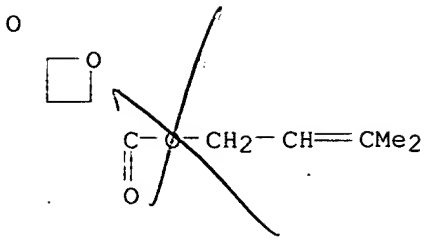
REFERENCE 1: 137:353339

REFERENCE 2: 136:263566

L13 ANSWER 4 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **404568-03-2** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, 3-methyl-2-butenyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
MF (C11 H10 O4 . C9 H12 O4)x
CI PMS
PCT Polyester, Polyester formed, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

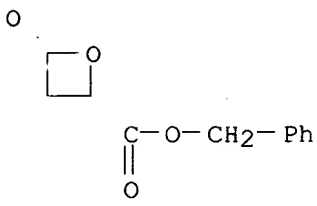
CM 1

CRN 404567-84-6
CMF C9 H12 O4



CM 2

CRN 76652-44-3
CMF C11 H10 O4



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

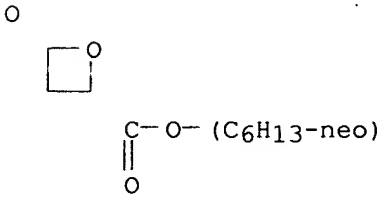
REFERENCE 1: 137:353339

REFERENCE 2: 136:263566

L13 ANSWER 5 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **327614-59-5** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, polymer with neohexyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxetanecarboxylic acid, 4-oxo-, neohexyl ester, polymer with 4-oxo-2-oxetanecarboxylic acid (9CI)
MF (C10 H16 O4 . C4 H4 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS

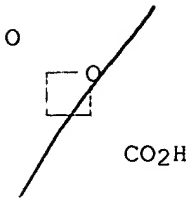
CM 1

CRN 327614-57-3
CMF C10 H16 O4
CCI IDS



CM 2

CRN 90730-97-5
CMF C4 H4 O4



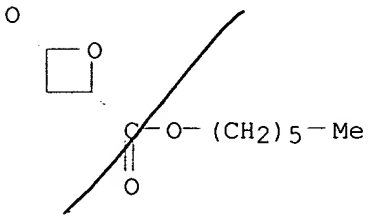
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:197932 (2000)

L13 ANSWER 6 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **327604-90-0** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, polymer with hexyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxetanecarboxylic acid, 4-oxo-, hexyl ester, polymer with 4-oxo-2-oxetanecarboxylic acid (9CI)
MF (C10 H16 O4 . C4 H4 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS

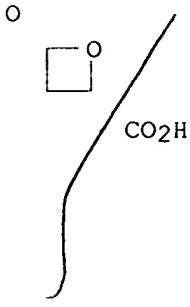
CM 1

CRN 327604-80-8
CMF C10 H16 O4



CM 2

CRN 90730-97-5
CMF C4 H4 O4

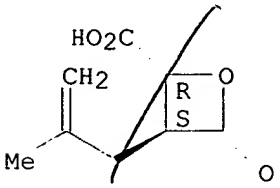


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:197932 (2000)

L13 ANSWER 7 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **284484-29-3** REGISTRY
CN 2-Oxetanecarboxylic acid, 3-(2-methyl-2-propenyl)-4-oxo-, (2R,3S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C8 H10 O4
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



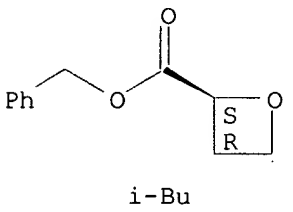
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677 2000

L13 ANSWER 8 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **284484-28-2** REGISTRY
CN 2-Oxetanecarboxylic acid, 3-(2-methylpropyl)-4-oxo-, phenylmethyl ester, (2S,3R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C15 H18 O4
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



Structure Needed

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

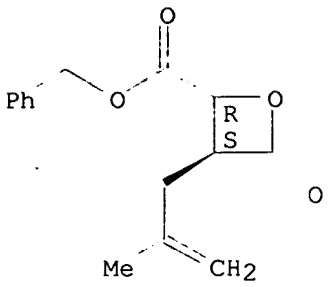
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677 (2000)

L13 ANSWER 9 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **284484-25-9** REGISTRY
CN 2-Oxetanecarboxylic acid, 3-(2-methyl-2-propenyl)-4-oxo-, phenylmethyl ester, (2R,3S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH

MF C15 H16 O4
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



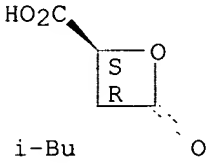
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677

L13 ANSWER 10 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **284484-01-1** REGISTRY
CN 2-Oxetanecarboxylic acid, 3-(2-methylpropyl)-4-oxo-, (2S,3R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C8 H12 O4
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



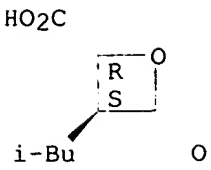
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677

L13 ANSWER 11 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **284484-00-0** REGISTRY
CN 2-Oxetanecarboxylic acid, 3-(2-methylpropyl)-4-oxo-, (2R,3S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C8 H12 O4
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:120677

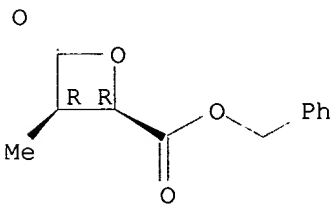
L13 ANSWER 12 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **216576-95-3** REGISTRY
CN 2-Oxetanecarboxylic acid, 3-methyl-4-oxo-, phenylmethyl ester, (2R-cis)-, homopolymer (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF (C12 H12 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS

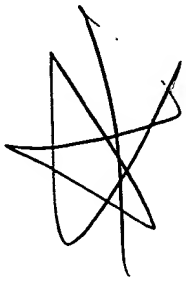
RELATED POLYMERS AVAILABLE WITH POLYLINK

CM 1

CRN 197010-19-8
CMF C12 H12 O4

Absolute stereochemistry. Rotation (+).



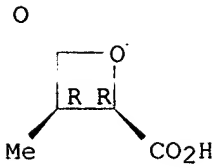


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:38756

L13 ANSWER 13 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **216576-94-2** REGISTRY
CN 2-Oxetanecarboxylic acid, 3-methyl-4-oxo-, (2R,3R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C5 H6 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



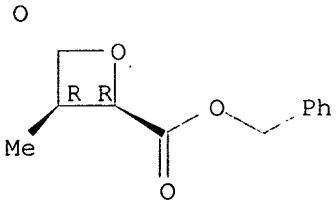
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:38756

L13 ANSWER 14 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **197010-19-8** REGISTRY
CN 2-Oxetanecarboxylic acid, 3-methyl-4-oxo-, phenylmethyl ester, (2R,3R)-(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxetanecarboxylic acid, 3-methyl-4-oxo-, phenylmethyl ester, (2R-cis)-
FS STEREOSEARCH
MF C12 H12 O4
CI COM
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:17901

REFERENCE 2: 131:341858

REFERENCE 3: 130:38756

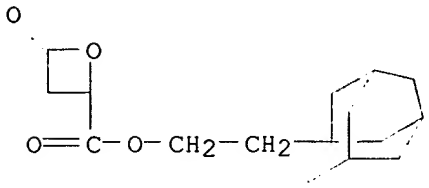
REFERENCE 4: 127:293731

L13 ANSWER 15 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **191938-08-6** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, polymer with 2-tricyclo[3.3.1.13,7]dec-1-ylethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-tricyclo[3.3.1.13,7]dec-1-ylethyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI)
OTHER NAMES:

CN Benzyl malolactonate-ethyladamantyl malolactonate copolymer
MF (C16 H22 O4 . C11 H10 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS

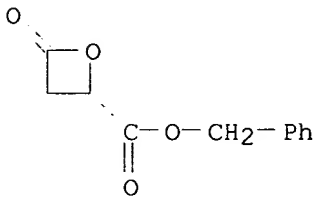
CM 1

CRN 191938-04-2
CMF C16 H22 O4



CM 2

CRN 76652-44-3
CMF C11 H10 O4



4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:153453

REFERENCE 2: 132:208383

REFERENCE 3: 129:4944

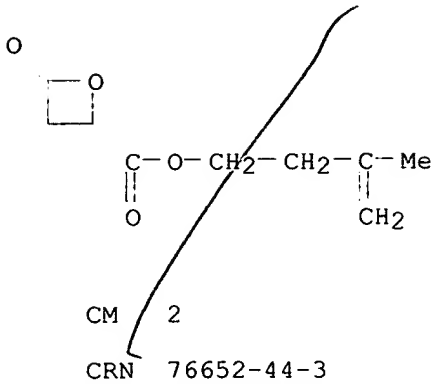
REFERENCE 4: 127:81855

#5 of 8

L13 ANSWER 16 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **182230-36-0** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, 3-methyl-3-butenyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, polymer with 3-methyl-3-butenyl 4-oxo-2-oxetanecarboxylate (9CI)
MF (C11 H10 O4 . C9 H12 O4)x
CI PMS
PCT Polyester, Polyester formed, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

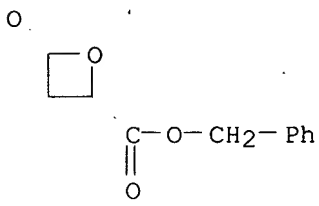
CM 1

CRN 182230-27-9
CMF C9 H12 O4



CM 2

CRN 76652-44-3
CMF C11 H10 O4



3 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

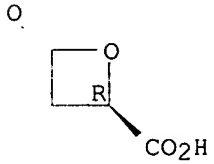
REFERENCE 1: 137:353339

REFERENCE 2: 136:263566

REFERENCE 3: 125:249178

L13 ANSWER 17 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **177019-47-5** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, (2R)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxetanecarboxylic acid, 4-oxo-, (R)-
FS STEREOSEARCH
MF C4 H4 O4
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

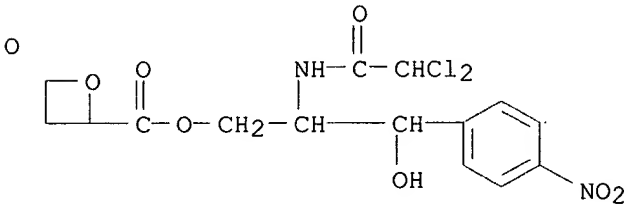
REFERENCE 1: 133:120677

REFERENCE 2: 124:344800

L13 ANSWER 18 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **176903-12-1** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-[(dichloroacetyl)amino]-3-hydroxy-3-(4-nitrophenyl)propyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, polymer with 2-[(dichloroacetyl)amino]-3-hydroxy-3-(4-nitrophenyl)propyl 4-oxo-2-oxetanecarboxylate (9CI)
MF (C15 H14 Cl2 N2 O8 . C11 H10 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS

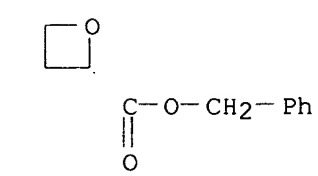
CM 1

CRN 176903-11-0
CMF C15 H14 Cl2 N2 O8



CM 2

CRN 76652-44-3
CMF C11 H10 O4



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

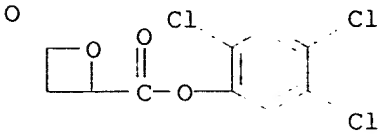
REFERENCE 1: 124:344800

L13 ANSWER 19 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **176903-10-9** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, polymer with

2,4,5-trichlorophenyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxetanecarboxylic acid, 4-oxo-, 2,4,5-trichlorophenyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI)
MF (C11 H10 O4 . C10 H5 Cl3 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS

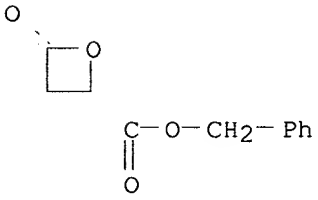
CM 1

CRN 176903-09-6
CMF C10 H5 Cl3 O4



CM 2

CRN 76652-44-3
CMF C11 H10 O4



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:344800

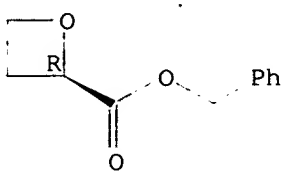
L13 ANSWER 20 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **137257-54-6** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, (R)-, polymer with (S)-phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, (S)-, polymer with (R)-phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI)
FS STEREOSEARCH
MF (C11 H10 O4 . C11 H10 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 99494-21-0
CMF C11 H10 O4

Absolute stereochemistry.

O

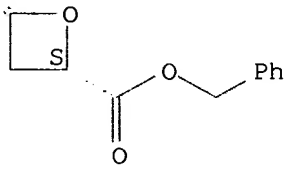


CM 2

CRN 88904-00-1
CMF C11 H10 O4

Absolute stereochemistry.

O



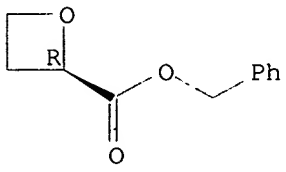
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 116:21770

L13 ANSWER 21 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **99494-21-0** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, (R)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Benzyl (R)-malolactonate
FS STEREOSEARCH
MF C11 H10 O4
CI COM
SR CA
LC STN Files: CA, CAPLUS, CASREACT, CHEMINFORMRX

Absolute stereochemistry.

O



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:344800

REFERENCE 2: 120:163839

REFERENCE 3: 106:120326

REFERENCE 4: 106:120242

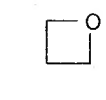
REFERENCE 5: 104:6283

L13 ANSWER 22 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **97332-00-8** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, homopolymer (9CI) (CA INDEX NAME)
DR 137257-53-5
MF (C4 H4 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

CM 1

CRN 90730-97-5
CMF C4 H4 O4

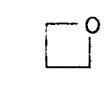


2 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 116:21770

REFERENCE 2: 103:37799

L13 ANSWER 23 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **90730-97-5** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Malic acid, .beta.-lactone (6CI)
OTHER NAMES:
CN 4-Oxo-2-oxetanecarboxylic acid
CN Malolactonic acid
FS 3D CONCORD
DR 137257-52-4
MF C4 H4 O4
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:353339

REFERENCE 2: 133:182803

REFERENCE 3: 132:322157

REFERENCE 4: 127:81855

REFERENCE 5: 124:344800

REFERENCE 6: 123:170439

REFERENCE 7: 54:37583

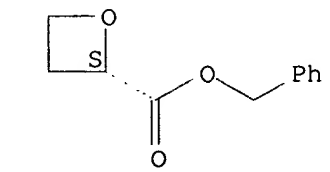
L13 ANSWER 24 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **88928-81-8** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, (S)-, homopolymer (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF (C11 H10 O4)x
CI PMS
PCT Polyester, Polyester formed
LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

CM 1

CRN 88904-00-1
CMF C11 H10 O4

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 116:21770

REFERENCE 2: 106:120242

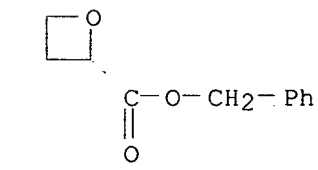
REFERENCE 3: 100:91272

L13 ANSWER 25 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **76653-40-2** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, homopolymer (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (R,S)-Benzyl malolactate homopolymer
CN Benzyl .beta.-malolactonate homopolymer
CN Benzyl malolactone homopolymer
CN Benzyl-.beta.-D,L-malolactonate homopolymer
CN Poly(4-benzyloxycarbonyl-2-oxetanone)
CN Poly(benzyl malolactonate)
DR 129868-82-2, 88849-68-7
MF (C11 H10 O4)x
CI PMS
PCT Polyester, Polyester formed
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

RELATED POLYMERS AVAILABLE WITH POLYLINK

CM 1

CRN 76652-44-3
CMF C11 H10 O4



29 REFERENCES IN FILE CA (1907 TO DATE)
8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
29 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:351035

REFERENCE 2: 138:137702

REFERENCE 3: 137:353339

REFERENCE 4: 136:263566

REFERENCE 5: 134:197932

REFERENCE 6: 132:251523

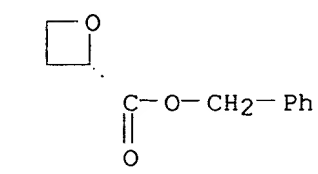
REFERENCE 7: 131:286898

REFERENCE 8: 130:312192

REFERENCE 9: 129:4944

REFERENCE 10: 128:308870

L13 ANSWER 26 OF 26 REGISTRY COPYRIGHT 2004 ACS on STN
RN **76652-44-3** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Benzyl .beta.-malolactonate
CN Benzyl 2-oxetanone-4-carboxylate
CN Benzyl malolactonate
CN Benzyl-.beta.-D,L-malolactonate
FS 3D CONCORD
DR 129868-81-1, 88849-67-6
MF C11 H10 O4
CI COM
LC STN Files: CA, CAPLUS, CHEMINFORMRX, TOXCENTER, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
20 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:288060

REFERENCE 2: 137:353339

REFERENCE 3: 133:63846

REFERENCE 4: 132:137864

REFERENCE 5: 131:356030

REFERENCE 6: 130:312192

REFERENCE 7: 128:308870

REFERENCE 8: 128:196596

REFERENCE 9: 128:116529

REFERENCE 10: 128:114044

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 16:12:10 ON 28 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 28 Jan 2004 VOL 140 ISS 5
FILE LAST UPDATED: 27 Jan 2004 (20040127/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> d stat que l16 nos
L3              STR
L5           75 SEA FILE=REGISTRY SSS FUL L3
L7              STR
L8           23 SEA FILE=REGISTRY SUB=L5 SSS FUL L7
L9           52 SEA FILE=REGISTRY ABB=ON  PLU=ON  L5 NOT L8
L10          19 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8
L11          67 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L12           8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND L11
L14          17 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND PD=<JULY 18, 2001
L16          10 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L14 NOT L12
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=> d ibib abs hitrn l16 1-10

L16 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:139459 HCAPLUS
DOCUMENT NUMBER: 135:5286
TITLE: Evidence for .alpha.-lactone intermediates in addition of aqueous bromine to disodium dimethyl-maleate and -fumarate
AUTHOR(S): Robinson, James J.; Buchanan, J. Grant; Kinsman, Richard G.; Mahon, Mary F.; Williams, Ian H.; Charlton, Michael H.
CORPORATE SOURCE: Department of Chemistry, University of Bath, Bath, BA2 7AY, UK
SOURCE: Chemical Communications (Cambridge, United Kingdom) (2001), (5), 485-486
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Crystallog. anal. of the bromo-.beta.-lactones obtained by addn. of bromine to aq. solns. of disodium 2,3-dimethylmaleate and 2,3-dimethylfumarate reveals stereochemistries opposite to those originally assigned and suggests that the first-formed intermediate in each case is an .alpha.-lactone.
IT **340829-88-1 340829-89-2**
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(correction of literature assignment; evidence for .alpha.-lactone intermediates in addn. of aq. bromine to disodium dimethylmaleate and -fumarate)
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:419441 HCAPLUS
DOCUMENT NUMBER: 133:182803
TITLE: Design of malolactonic acid esters with a large spectrum of specified pendant groups in the engineering of biofunctional and hydrolyzable polyesters
AUTHOR(S): Cammas-Marion, Sandrine; Guerin, Philippe
CORPORATE SOURCE: Laboratoire de Recherche sur les Polymeres, Thiais, 94 320, Fr.
SOURCE: Macromolecular Symposia (2000), 153(Recent Advances in Ring Opening (Metathesis) Polymerization), 167-186
CODEN: MSYMEC; ISSN: 1022-1360
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 26 refs. The development of multimeric functionalized macromols. with the strict adjustment of their structure and their properties, aimed at biol. applications, leads to complex architecture and puts on the diversification of hydrolyzable polymers. Poly(.beta.-malic acid) derivs. are very good candidates in the prepn. of smart mols. for a large spectrum of applications in the release of bioactive mols., due to the presence of a lateral carboxylic acid function besides stereogenic centers in the repeating units and main chain cleavable bonds. The opportunity for accessing to these structures comes from mastery of the corresponding functionalized .beta.-substituted .beta.-lactones synthesis. Two different synthesis routes have been established and the functional pendant groups is attached at the step preceding the lactone formation. A third way consists in the synthesis of malolactonic acid which is reacted with a specific mol. in presence of a coupling reagent. It is therefore possible to dispose of an important wealth of monomers and to tailor-make polymeric materials having a well-defined compn. Multimeric structures have been elaborated aimed at degradable micelles from block copolymers, nanoparticles starting from hydrophobic polyesters, biomimetic architecture for interacting with fibroblast growth factors and amphiphilic assocg. polymers for hydrogel networks. Biodegradable graft copolymers have been elaborated for bioactive mols. encapsulation and bioartificial membranes, including cholesterol and diacylglycerol, have been tailor-made.
IT **90730-97-5DP**, Malolactonic acid, polymers
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(design of malolactonic acid esters with a large spectrum of specified pendant groups in the engineering of biofunctional and hydrolyzable polyesters)
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:201732 HCAPLUS
DOCUMENT NUMBER: 132:322157
TITLE: 4-Alkyloxycarbonyl-2-oxetanones and 3-alkyl-4-alkyloxycarbonyl-2-oxetanones as versatile chiral precursors in the design of functionalized polyesters with a controlled architecture
AUTHOR(S): Cammas-Marion, Sandrine; Guerin, Philippe
CORPORATE SOURCE: Laboratoire de Recherche sur les Polymeres, UMR C7581 CNRS, Universite Paris XII Val de Marne, Thiais, 94320, Fr.
SOURCE: Designed Monomers and Polymers (2000), 3(1),

77-93
CODEN: DMPOF3; ISSN: 1385-772X
PUBLISHER: VSP BV
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB The necessity for accessing a very large variety of high-mol.-wt. racemic and optically active polyesters aimed at biomedical or chem. applications has led to the growth of a large series of racemic and optically active 4-alkoxycarbonyl-2-oxetanones and 3-alkyl-4-alkoxycarbonyl-2-oxetanones. Different synthesis routes established by the authors to prep. these monomers according to the bound ester group structure and the required enantiomeric or diastereomeric excess are reviewed with 32 refs. The major interest in this enlarged monomer family lies in the possibility of having at one's disposal .beta.-substituted .beta.-lactones with very strict control of the stereogenic center configuration.

IT **90730-97-5DP**, 4-Oxo-2-oxetanecarboxylic acid, alkyl esters
RL: SPN (Synthetic preparation); PREP (Preparation)
(chiral precursors in design of functionalized polyesters with controlled architecture)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:996640 HCAPLUS
DOCUMENT NUMBER: 124:37707
TITLE: Liquid delivery compositions
INVENTOR(S): Yewey, Gerald L.; Krinick, Nancy L.; Dunn, Richard L.; Radomsky, Michael L.; Brouwer, Gerbrand; Tipton, Arthur J.
PATENT ASSIGNEE(S): Atrix Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9527481	A1	19951019	WO 1995-US3792	19950327	<--
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM					
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
CA 2187353	AA	19951019	CA 1995-2187353	19950327	<--
AU 9521294	A1	19951030	AU 1995-21294	19950327	<--
AU 684931	B2	19980108			
EP 754032	A1	19970122	EP 1995-914202	19950327	<--
EP 754032	B1	20011205			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
BR 9507313	A	19971007	BR 1995-7313	19950327	<--
JP 09511741	T2	19971125	JP 1995-526358	19950327	<--
EP 1125577	A2	20010822	EP 2001-111735	19950327	
EP 1125577	A3	20030108			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE					
AT 209907	E	20011215	AT 1995-914202	19950327	
PT 754032	T	20020531	PT 1995-95914202	19950327	
ES 2171186	T3	20020901	ES 1995-914202	19950327	
US 5759563	A	19980602	US 1995-486262	19950607	<--
US 5780044	A	19980714	US 1996-761015	19961205	<--

US 5744153 A 19980428 US 1997-871492 19970609 <--
PRIORITY APPLN. INFO.: US 1994-225140 A 19940408
EP 1995-914202 A3 19950327
WO 1995-US3792 W 19950327
US 1995-487979 B1 19950607

AB Improved biocompatible liq. delivery compns., which ar useful for the formation of sustained release delivery systems for active agents, are provided. The compns. include liq. formulations of a biocompatible polymer or prepolymer in combination with a controlled release component. The controlled release component includes an active agent. These compns. may be introduced into the body of a subject in liq. from which then solidify or cure in situ to form a controlled release implant or a film dressing. The liq. delivery compns. may also be employed ex situ to produce a controlled release implant. Methods of forming a controlled release implant and employing the liq. formulations in the treatment of a subject are also provided.

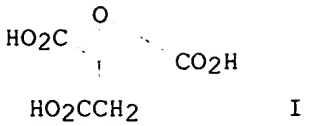
IT **171866-63-0**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(liq. controlled release drug delivery systems)

L16 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:649881 HCAPLUS
DOCUMENT NUMBER: 123:170439
TITLE: Tailor-making of multimeric poly(.beta.-malic acid) derivatives: Property adjustment through ester pendant groups
AUTHOR(S): Cammas, S.; Leboucher, M. A.; Renard, I.; Boutault, K.; Guerin, Ph.
CORPORATE SOURCE: URA CNRS 1467, Ecole Nationale Superieure de Chimie de Rennes, Rennes, 35700, Fr.
SOURCE: Studies in Polymer Science (1994), 12(Biodegradable Plastics and Polymers), 534-40
CODEN: SPLSEA; ISSN: 0922-5579
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Biodegradable high mol. wt. polymers and copolymers were prepd. using various ester derivs. of .beta.-malolactone.

IT **90730-97-5DP**, Malic acid .beta.-lactone, esters, polymers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of biodegradable polymalolactonates)

L16 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:320149 HCAPLUS
DOCUMENT NUMBER: 123:198258
TITLE: Synthesis of Novel Thiol-Containing Citric Acid Analogs. Kinetic Evaluation of These and Other Potential Active-Site-Directed and Mechanism-Based Inhibitors of ATP Citrate Lyase
AUTHOR(S): Dolle, Roland E.; Gribble, Andy; Wilkes, Tracey; Kruse, Lawrence I.; Eggleston, Drake; Saxty, Barbara A.; Wells, Timothy N. C.; Groot, Pieter H. E.
CORPORATE SOURCE: Departments of Medicinal Chemistry and Cellular Pharmacology, SmithKline Beecham Pharmaceuticals Ltd., Welwyn/Welwyn, AL6 9AR, UK
SOURCE: Journal of Medicinal Chemistry (1995), 38(3), 537-43
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB ATP citrate lyase is an enzyme involved in mammalian lipogenesis and cholesterogenesis. Inhibitors of the enzyme represent a potentially novel class of hypolipidemic agents. Citric acid analogs, e.g. I, (.+-.)-HO2CCH2C(OH)C(CO2H)CHClCO2H, bearing electrophilic and latent electrophilic substituents were synthesized and evaluated as irreversible inhibitors of ATP citrate lyase. The design of these agents was based on the classical enzymic mechanism where an active-site nucleophile (thiol) was believed to be critically involved in catalysis. Reversible inhibition (Ki's ranging from ca. 20 to 500 .mu.M) was obsd. for some of these compds. Some of the compds., e.g. I, had no appreciable affinity for the enzyme (Ki > 1 mM). Time-dependent inactivation of the enzyme was not detected following long incubation times (>1 h, 37 .degree.C) at 2 mM inhibitor concns.

IT **168037-32-9**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(synthesis of citric acid analogs as inhibitors of ATP citrate lyase)

L16 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1986:90089 HCAPLUS
DOCUMENT NUMBER: 104:90089
TITLE: Acrylic adhesives
INVENTOR(S): Takahashi, Shin; Kimura, Kaoru
PATENT ASSIGNEE(S): Toa Gosei Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60199085	A2	19851008	JP 1984-54488	19840323 <--
JP 04055470	B4	19920903		

PRIORITY APPLN. INFO.: JP 1984-54488 19840323

AB Two-component adhesives contain mixts. of polyurethane (meth)acrylates, (meth)acrylic acid or its esters, and peroxy esters, and mixts. contg. accelerators forming redox systems with peroxy esters. Thus, a substrate was coated with a mixt. of 2-hydroxyethyl methacrylate (I)-polyoxypropylene triol-TDI copolymer tartrate 50, I 50, methacrylic acid 10, and tert-BuOOBz 4 parts. Another substrate was coated with a mixt. of 80 parts C2HCl3 and 20 parts Nocceler 8 and bonded with the 1st layer to give a laminate with setting time 20 s, tensile shear strength 227 kg/cm2, impact strength 32 kg/cm2, and peel strength 11 kg/25 mm.

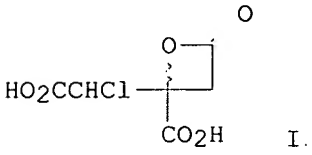
IT **100494-60-8**
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesives, two-component)

L16 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:438304 HCAPLUS
DOCUMENT NUMBER: 99:38304
TITLE: Chlorocitric acids
INVENTOR(S): Guthrie, Robert W.; Kierstead, Richard W.; Mennona, Francis A.; Sullivan, Ann C.

PATENT ASSIGNEE(S): Hoffmann-La Roche, Inc., USA
SOURCE: U.S., 23 pp. Cont.-in-part of U.S. 4,312,885.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 4365070	A	19821221	US 1981-312041	19811016	<--
US 4312885	A	19820126	US 1978-973504	19781226	<--
ZA 7906685	A	19801126	ZA 1979-6685	19791210	<--
AT 3851	E	19830715	AT 1979-105314	19791221	<--
US 4352758	A	19821005	US 1981-290988	19810807	<--
US 4443619	A	19840417	US 1981-290989	19810807	<--
US 4340754	A	19820720	US 1981-304282	19810921	<--
US 4354039	A	19821012	US 1981-304407	19810921	<--

PRIORITY APPLN. INFO.: US 1978-973504 19781226
CH 1979-10580 19791128
EP 1979-105314 19791221
OTHER SOURCE(S): CASREACT 99:38304
GI



I.

AB Isomeric lactones I were prepd. Thus, tri-Na trans-aconitate was treated with Cl2 to give (.+-.)-threo-I which was resolved with brucine. At 69 mg/kg orally in rats (+)-threo-I depressed food intake to 35% of controls.
IT **85548-57-8P 85548-58-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn., esterification and appetite depressant activity of)
IT **168037-32-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn., resoln., and appetite depressant activity of)

L16 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1981:83631 HCAPLUS
DOCUMENT NUMBER: 94:83631
TITLE: Citric acid derivatives and corresponding threo-.beta.-lactones
PATENT ASSIGNEE(S): Hoffmann-La Roche, F., und Co. A.-G., USA
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

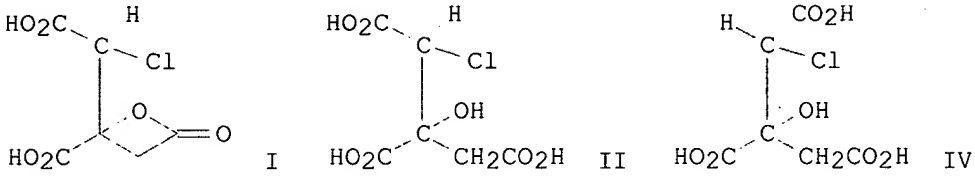
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
JP 55089243	A2	19800705	JP 1979-167731	19791225	<--
JP 01010496	B4	19890222			

US 4312885	A	19820126	US 1978-973504	19781226 <--
FI 7903976	A	19800627	FI 1979-3976	19791218 <--
FI 67073	B	19840928		
FI 67073	C	19850110		
AU 7954009	A1	19800703	AU 1979-54009	19791219 <--
AU 527139	B2	19830217		
CA 1138470	A1	19821228	CA 1979-342235	19791219 <--
IL 59015	A1	19831031	IL 1979-59015	19791220 <--
DK 7905540	A	19800627	DK 1979-5540	19791221 <--
DK 154641	B	19881205		
DK 154641	C	19890508		
NO 7904232	A	19800627	NO 1979-4232	19791221 <--
NO 153491	B	19851223		
NO 153491	C	19860402		
EP 16867	A1	19801015	EP 1979-105314	19791221 <--
EP 16867	B1	19830622		
R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
HU 22374	O	19820528	HU 1979-HO2203	19791221 <--
HU 179987	B	19830128		
AT 3851	E	19830715	AT 1979-105314	19791221 <--
ES 487247	A1	19801101	ES 1979-487247	19791224 <--
ES 492727	A1	19810601	ES 1980-492727	19800625 <--

PRIORITY APPLN. INFO.: US 1978-973504 19781226
CH 1979-10580 19791128
EP 1979-105314 19791221

OTHER SOURCE(S): CASREACT 94:83631

GI



I II IV

AB cis- Or trans-aconitic acid trialkali metal or trialk. earth metal salts were treated with Cl2 or HOCl to give the salts of (.+-.)-threo-chlorocitric acid .beta.-lactone (I), which were hydrolyzed with acids to give (.+-.)-threo-chlorocitric acid (II); ring cleavage of epoxyaconitic acid (III) by alkali metal chlorides or alk. earth metal chlorides in aq.media in the presence of acids gave (.+-.)-erythro-chlorocitric acid (IV). (+), (-), And (.+-.)-I, II, and IV are antiobesity agents and appetite stimulants. Thus, 58 g trans-aconitic acid and aq. NaOH gave the tri-Na salt, which was chlorinated by Cl2 at 10-15.degree. to give 41.5 g (.+-.)-I. Hydrolysis of this by HCl 1 h at 70.degree. gave 34 g (.+-.)-II. Epoxidn. of cis-aconitic anhydride by NaOH, 30% H2O2 and Na tungstate gave (.+-.)-erythro-III, which was treated with HCl and NaCl 15 min at 75.degree. to give (.+-.)-IV, resoln. of which with (-)-p-O2NC6H4CHMeNH2 gave (-)- and (+)-IV.

IT **76432-75-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrolysis of)

L16 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1960:37583 HCAPLUS
DOCUMENT NUMBER: 54:37583
ORIGINAL REFERENCE NO.: 54:7345d-f
TITLE: Angular dependence of electron-coupled proton interactions in CH2 groups

AUTHOR(S): Gutowsky, H. S.; Karplus, Martin; Grant, D. M.
CORPORATE SOURCE: Univ. of Illinois, Urbana
SOURCE: Journal of Chemical Physics (**1959**), 31, 1278-89
CODEN: JCPSA6; ISSN: 0021-9606
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Studies are described of the dependence upon HCH angle of the electron-coupled proton-proton interactions in CH2 groups. In the theoretical treatment a valence-bond approxn. is used which predicts that the coupling constant Agem.HH (I) decreases from 32 to 0 cycles for HCH angles of 100.degree. to 125.degree.. For angles greater than 125.degree., I is predicted to be neg. Good agreement was obtained between theoretical and exptl. coupling consts., obtained from analyses of the proton magnetic resonance spectra of a number of compds. including partially deuteriated species. For the substituted ethylenes, I was found to vary from 3.2 to -1.8 cycles, AcisHH values ranged from 6.9 to 12 cycles, and AtransHH from 14.3 to 18.4 cycles. The results indicate that the value of the coupling constant can be used as a measure of the HCH angle.

IT **90730-97-5**, Malic acid, .beta.-lactone
(electron-coupled proton interactions in CH2 group of, angle and)

=>
=>

=> select hit rn l18 1-8
E27 THROUGH E31 ASSIGNED

=> fil reg
FILE 'REGISTRY' ENTERED AT 16:12:36 ON 28 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6
DICTIONARY FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
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=> s e27-e31
1 76652-44-3/BI
(76652-44-3/RN)
1 76653-40-2/BI
(76653-40-2/RN)
1 250375-83-8/BI

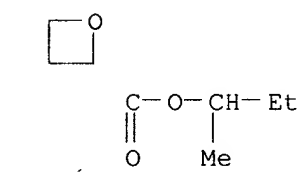
(250375-83-8/RN)
1 191792-09-3/BI
(191792-09-3/RN)
1 211368-81-9/BI
(211368-81-9/RN)
L19 5 (76652-44-3/BI OR 76653-40-2/BI OR 250375-83-8/BI OR 191792-09-3/BI OR 211368-81-9/BI)

=> d ide can l19 1-5

L19 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
RN **250375-83-8** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, 1-methylpropyl ester, polymer with phenylmethyl 4-oxo-2-oxetanecarboxylate and 2-propenyl 4-oxo-2-oxetanecarboxylate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxetanecarboxylic acid, 4-oxo-, 2-propenyl ester, polymer with 1-methylpropyl 4-oxo-2-oxetanecarboxylate and phenylmethyl 4-oxo-2-oxetanecarboxylate (9CI)
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, polymer with 1-methylpropyl 4-oxo-2-oxetanecarboxylate and 2-propenyl 4-oxo-2-oxetanecarboxylate (9CI)
MF (C11 H10 O4 . C8 H12 O4 . C7 H8 O4)x
CI PMS
PCT Polyester, Polyester formed, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 250375-82-7
CMF C8 H12 O4



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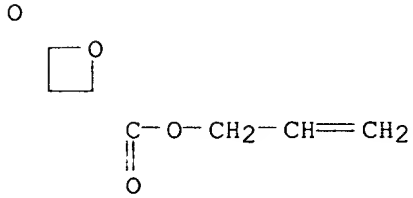

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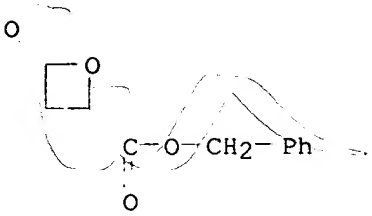
CRN 76652-44-3

CMF C11 H10 O4



4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:114460

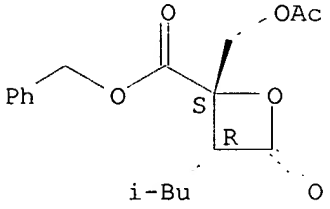
REFERENCE 2: 134:212664

REFERENCE 3: 132:137864

REFERENCE 4: 131:356030

L19 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
RN **211368-81-9** REGISTRY
CN 2-Oxetanecarboxylic acid, 2-[(acetyloxy)methyl]-3-(2-methylpropyl)-4-oxo-, phenylmethyl ester, (2S,3R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H22 O6
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.



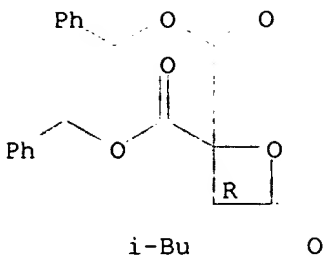
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 129:175968

L19 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
RN **191792-09-3** REGISTRY
CN 2,2-Oxetanedicarboxylic acid, 3-(2-methylpropyl)-4-oxo-, bis(phenylmethyl) ester, (R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C23 H24 O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

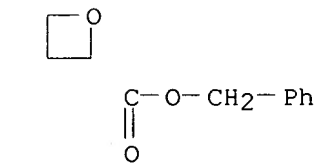
REFERENCE 1: 127:81790

L19 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
RN **76653-40-2** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester, homopolymer (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (R,S)-Benzyl malolactate homopolymer
CN Benzyl .beta.-malolactonate homopolymer
CN Benzyl malolactone homopolymer
CN Benzyl-.beta.-D,L-malolactonate homopolymer
CN Poly(4-benzyloxycarbonyl-2-oxetanone)
CN Poly(benzyl malolactonate)
DR 129868-82-2, 88849-68-7
MF (C11 H10 O4)x
CI PMS
PCT Polyester, Polyester formed
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

RELATED POLYMERS AVAILABLE WITH POLYLINK

CM 1

CRN 76652-44-3
CMF C11 H10 O4



29 REFERENCES IN FILE CA (1907 TO DATE)
8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
29 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:351035

REFERENCE 2: 138:137702

REFERENCE 3: 137:353339

REFERENCE 4: 136:263566

REFERENCE 5: 134:197932

REFERENCE 6: 132:251523

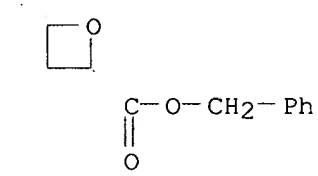
REFERENCE 7: 131:286898

REFERENCE 8: 130:312192

REFERENCE 9: 129:4944

REFERENCE 10: 128:308870

L19 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN
RN **76652-44-3** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, phenylmethyl ester (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Benzyl .beta.-malolactonate
CN Benzyl 2-oxetanone-4-carboxylate
CN Benzyl malolactonate
CN Benzyl-.beta.-D,L-malolactonate
FS 3D CONCORD
DR 129868-81-1, 88849-67-6
MF C11 H10 O4
CI COM
LC STN Files: CA, CAPLUS, CHEMINFORMRX, TOXCENTER, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
20 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:288060

REFERENCE 2: 137:353339

REFERENCE 3: 133:63846

REFERENCE 4: 132:137864

REFERENCE 5: 131:356030

REFERENCE 6: 130:312192

REFERENCE 7: 128:308870

REFERENCE 8: 128:196596

REFERENCE 9: 128:116529

REFERENCE 10: 128:114044

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 28 Jan 2004  VOL 140 ISS 5
FILE LAST UPDATED: 27 Jan 2004  (20040127/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


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L3              STR
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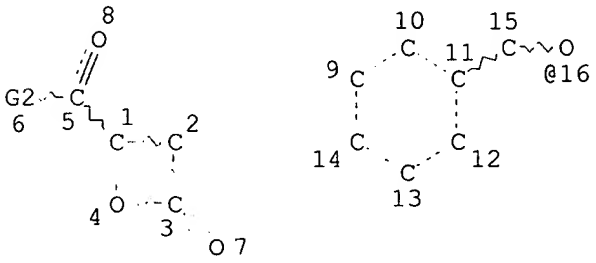


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DEFAULT ECLEVEL IS LIMITED

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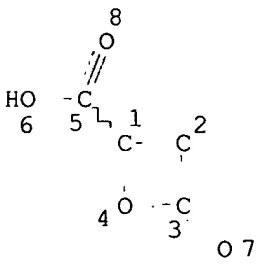

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L11           67 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L12            8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND L11
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L18            8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17 AND PATENT/DT


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L18  ANSWER 1 OF 8  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2000:84864  HCAPLUS
DOCUMENT NUMBER:          132:137864
TITLE:                    Biocompatible polymers, preparation method and
                          compositions containing same
INVENTOR(S):              Barritault, Denis; Caruelle, Jean-pierre
PATENT ASSIGNEE(S):       Fr.
SOURCE:                   PCT Int. Appl., 127 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 French
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.   DATE
     ---------------   ----  --------       ---------------   --------
     WO 2000005270      A1   20000203       WO 1999-FR1774    19990720 <--
         W:  AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     FR 2781485         A1   20000128       FR 1998-9309      19980721 <--
     FR 2781485         B1   20030808
     CA 2337328         AA   20000203       CA 1999-2337328   19990720 <--
     AU 9949136         A1   20000214       AU 1999-49136     19990720 <--
     EP 1117695         A1   20010725       EP 1999-932921    19990720
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 2002521503      T2   20020716       JP 2000-561226    19990720
     US 2001021758      A1   20010913       US 2001-765788    20010119
PRIORITY APPLN. INFO.:                   FR 1998-9309     A  19980721
                                         WO 1999-FR1774   W  19990720
AB   The invention concerns a biocompatible polymer, useful in pharmaceutical
     and diagnostic compns., consisting of a sequence of identical or different
     units: AaXxYy, wherein A represents a monomer unit selected from
     carbohydrates, esters, alcs., acids, amines, and nucleotides; X represents
```

a carboxyl group fixed on A; Y represents a sulfate or sulfonate group fixed on A; a represents the no. of A; x represents the substitution degree by the groups X; y represents the substitution degree by the groups Y. A typical polymer was manufd. by polymn. of benzyl malolactonate 24.2, allyl malolactonate 9.3, and 2-Bu malolactonate in the presence of tetraethylammonium benzoate at 37.degree. under N, epoxidn. of the allyl groups on the product with m-chloroperbenzoic acid, hydrogenation of epoxidn. product to remove the benzyl groups, and sulfonation of epoxide groups of the resulting acidic polymer with Na2S2O5.

IT **250375-83-8DP**, epoxidized, hydrolyzed, sulfonated
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation)
(biocompatible polymers having carboxy and sulfo groups)

IT **76652-44-3P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer; biocompatible polymers having carboxy and sulfo groups)

IT **250375-83-8P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(precursor; biocompatible polymers having carboxy and sulfo groups)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:543063 HCAPLUS
DOCUMENT NUMBER: 129:175968
TITLE: Preparation of water-soluble hydroxysuccinate derivatives as matrix metalloproteinase inhibitors
INVENTOR(S): Alpegiani, Marco; Palladino, Massimiliano; Corigli, Riccardo; Jabes, Daniela; Perrone, Ettore; Abrate, Francesca; Bissolino, Pierluigi; Lombroso, Marina
PATENT ASSIGNEE(S): Pharmacia & Upjohn S.p.A., Italy
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9833788	A1	19980806	WO 1998-EP531	19980123	<--
W: AU, BR, CA, CN, HU, IL, JP, KR, MX, NO, NZ, PL, UA, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
CN 1223636	A	19990721	CN 1997-195888	19970620	<--
AU 9862942	A1	19980825	AU 1998-62942	19980123	<--
EP 960108	A1	19991201	EP 1998-906901	19980123	<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI					
JP 2001511139	T2	20010807	JP 1998-532543	19980123	
US 6194451	B1	20010227	US 1999-355315	19990730	<--

PRIORITY APPLN. INFO.: GB 1997-2088 A 19970131
WO 1998-EP531 W 19980123

OTHER SOURCE(S): MARPAT 129:175968
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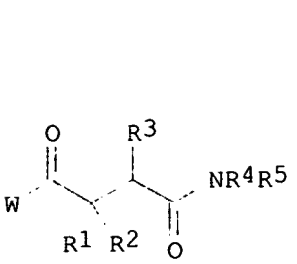

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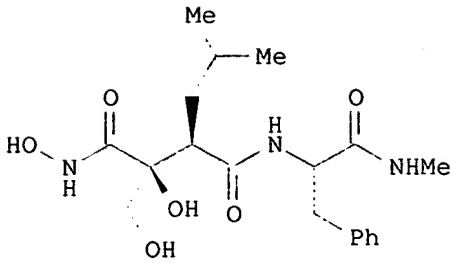


II

AB A title compds. I [W = NHOH or OH, R1 = (un)protected CH2OH, CH2SH, or derivs. thereof; R2 = (un)protected OH; R3, R4 = org. group; R5 = H, Me; NR4R5 = azaheterocyclyl], and the solvates, hydrates and pharmaceutically acceptable salts thereof, can inhibit matrix metalloproteinases (MMP) and the release of tumor necrosis factor (TNF). Processes for producing the compd., intermediates involved in the processes, and pharmaceutical compns. contg. the compd. are also described. Thus II, prepd. in several steps from DL-leucine, dibenzyl malonate, and L-phenylalanine methylamide, inhibited MMP-1, MMP-2, and MMP-3 with Ki = 1.5 nM, 3.1 nM, and 32 nM, resp.

IT **211368-81-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of water-sol. hydroxysuccinate derivs. as matrix metalloproteinase inhibitors)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:41836 HCAPLUS
DOCUMENT NUMBER: 128:116529
TITLE: N-substituted chitosan derivatives and their preparation
INVENTOR(S): Lohmann, Dieter; Randell, Donald Richard
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Corporation, USA
SOURCE: U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 36,635, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5708152	A	19980113	US 1995-451324	19950526 <--
US 5977330	A	19991102	US 1997-929728	19970915 <--

PRIORITY APPLN. INFO.: CH 1992-981 A 19920327
US 1993-36635 B2 19930324
US 1995-451324 A3 19950526

AB N-acylated chitosans contg. acid and OH groups in the N-acyl group, useful as humectants and for prevention of the adherence to and(or) formation of solid deposits on inorg. or org. substrates, are manufd. by reaction of chitosans with .beta.-lactones or .beta.-sultones contg. CCl3 groups, which are converted to carboxy groups. Thus, reaction of chitosan gel with R(-)-4-(trichloromethyl)-2-oxetanone in N-methylpyrrolidone 24 h at 55.degree. in presence of LiCl, and hydrolysis of the CCl3 groups in the intermediate gave 69.5% product with carboxy content 3.57 mequiv/g.

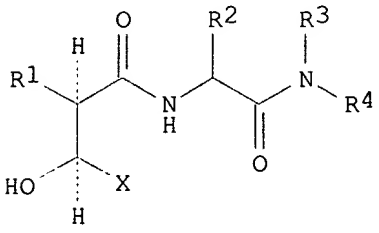
IT **76652-44-3DP**, Benzyl 2-oxetanone-4-carboxylate, reaction products with chitosan, debenzylated

RL: IMF (Industrial manufacture); PREP (Preparation)
(N-substituted chitosan derivs. for humectants and antideposition agents)
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:465027 HCAPLUS
DOCUMENT NUMBER: 127:81790
TITLE: Synthesis of carboxamide-derivative matrix metalloproteinase inhibitors
INVENTOR(S): Reeve, Maxwell; Bowles, Stephen Arthur
PATENT ASSIGNEE(S): British Biotech Pharmaceuticals Limited, UK; Reeve, Maxwell; Bowles, Stephen Arthur
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9719050	A1	19970529	WO 1996-GB2820	19961118	<--
W: AU, BR, CA, CN, CZ, GB, HU, IL, JP, KR, MX, NO, NZ, PL, TR, US					
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
AU 9675823	A1	19970611	AU 1996-75823	19961118	<--
GB 2321459	A1	19980729	GB 1998-6358	19961118	<--
EP 861226	A1	19980902	EP 1996-938374	19961118	<--
EP 861226	B1	20000223			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI					
JP 2000500759	T2	20000125	JP 1997-519481	19961118	<--
AT 189886	E	20000315	AT 1996-938374	19961118	<--
ES 2144271	T3	20000601	ES 1996-938374	19961118	<--
US 5986132	A	19991116	US 1998-68676	19980514	<--

PRIORITY APPLN. INFO.: GB 1995-23637 A 19951118
WO 1996-GB2820 W 19961118
OTHER SOURCE(S): MARPAT 127:81790
GI



I

AB The title compds. [I; R1 = (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, phenylalkoxy, etc.; R2 = (un)natural .alpha.-amino acid; R3 = H, alkyl; R4 = H, alkyl, perfluoroalkyl, (un)substituted NH2, (un)substituted Ph or heteroaryl; X = carboxylic acid groups or salts], useful as matrix metalloproteinase inhibitors (no data), are prepd. Thus, 3R-(2,2-dimethyl-1S-methylcarbamoylpropylcarbamoyl)-2S-hydroxy-5-methylhexanohydroxamic acid was prepd. from 2-benzyloxycarbonyl-3R-isobutylsuccinic acid 1-benzyl ester in 6 steps.
IT **191792-09-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate in prepn. of (hydroxycarboxyacyl) amino acid amides as matrix metalloproteinase inhibitors)

L18 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:785205 HCAPLUS
DOCUMENT NUMBER: 124:59349
TITLE: Varnish compositions containing biodegradable polymers and antifouling coating compositions
INVENTOR(S): Tendo, Kazuyoshi; Tai, Seiji; Uejima, Koichi; Tanaka, Hiroyuki
PATENT ASSIGNEE(S): Hitachi Chemical Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07150077	A2	19950613	JP 1993-301598	19931201 <--

PRIORITY APPLN. INFO.: JP 1993-301598 19931201

AB Title compns. contain carboxyl-substituted biodegradable polymers and triazoles and title coatings contain the varnishs and Cu compds. The coatings, which are self-degradable under alk. condition and prevent gelation in the presence Cu compds., are useful for ship, fishing nets, etc. Thus, 25 g-solid varnish comprising 40 parts poly(DL-malic acid) and 60 parts Me2CO was mixed with 250 mg 3-amino-1H-1,2,4-triazole then mixed with 75 g powd. Cu2O to give title coating, which was left at 40.degree. for 20 days to show retention of the thickness.

IT **76653-40-2**, Poly(benzyl malolactonate)
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(biodegradable; antifouling coatings contg. carboxyl-substituted biodegradable polymers and triazoles and copper compds.)

L18 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:247703 HCAPLUS
DOCUMENT NUMBER: 120:247703
TITLE: Preparation and use of N-substituted chitosan derivatives
INVENTOR(S): Lohmann, Dieter; Randell, Donald Richard
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 563013	A2	19930929	EP 1993-810197	19930318 <--
EP 563013	A3	19940420		
EP 563013	B1	19970423		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
AT 152132	E	19970515	AT 1993-810197	19930318 <--
CA 2092513	AA	19930928	CA 1993-2092513	19930325 <--
AU 9335511	A1	19930930	AU 1993-35511	19930326 <--
AU 658986	B2	19950504		
BR 9301334	A	19931130	BR 1993-1334	19930326 <--
JP 06041202	A2	19940215	JP 1993-69517	19930329 <--

PRIORITY APPLN. INFO.: CH 1992-981 A 19920327

AB Chitosans bearing -NHZ1Z2X [Z1 = CO, SO2; Z2 = CHR1R2OH (R1 = H, OH, alkoxyl, alkyl; R2 = H, alkyl); X = CO2H, CH2CO2H, CH2PO(OH)2], NHR3 (R3 = H, Ac), and, optionally, OZ1Z2X groups, useful as antiblocking and antifouling agents and as moisturizers for skin and mucous membranes (no data), are prepd. Chitosan (mol. wt. 75,000, Ac group content 4.5%) was activated by treatment in 5% AcOH with NaOH, washed, dewatered with dioxane, and treated (25 g solids) in 500 mL N-methylpyrrolidone (I) contg. 25 g LiCl with 58.9 g (R)-4-(trichloromethyl)-2-oxetanone in 1 L I at room temp., and heated at 55.degree. for 24 h to give a product (II) with Cl-N ratio 3.06. Sapon. of II in aq. NaOH at 0-5.degree. and then at room temp. gave 29.9 g product with H2O content 19.11% and CO2H content 3.57 mequiv./g. Use of the products as antiagglomerating agents in the crystn. of inorg. salts is exemplified.

IT **76652-44-3DP**, reaction products with chitosan
RL: PREP (Preparation); USES (Uses)
(prepn. and use of)

L18 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1981:516201 HCAPLUS
DOCUMENT NUMBER: 95:116201
TITLE: Malic acid polymers
INVENTOR(S): Lenz, Robert W.; Vert, Michel
PATENT ASSIGNEE(S): Research Corp. , USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4265247	A	19810505	US 1979-92183	19791107 <--

PRIORITY APPLN. INFO.: US 1979-92183 19791107

AB Polymers contg. pendant carboxy groups are prepd. from .beta.-malolactone or its derivs. and can be used as absorbable sutures or drug carriers for slow-release medications. Thus, malolactonic acid benzyl ester [**76652-44-3**] (prepd. from bromosuccinic acid [923-06-8] by way of the monobenzyl ester) was polymd. in an inert atm. in the presence of catalysts such as betaine [107-43-7] to give a polymer [76653-75-3] (m. 80.degree.) in 55% yield after 21 days at room temp. The side chain benzyl group was selectively cleaved to the corresponding free carboxylic acid by catalytic hydrogenolysis. Thus, poly(.beta.-malic acid) [78666-19-0] was isolated as a hygroscopic white powder.

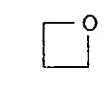
IT **76653-40-2P**
RL: PREP (Preparation)
(prepn. and conversion to poly(.beta.-malic acid))

IT **76652-44-3P**
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and polymn. of)

L18 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1981:481774 HCAPLUS
DOCUMENT NUMBER: 95:81774
TITLE: Polymers from alkoxycarbonylpropiolactone for absorbable surgical goods
PATENT ASSIGNEE(S): Research Corp., USA
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56026929	A2	19810316	JP 1979-100800	19790809 <--

PRIORITY APPLN. INFO.: JP 1979-100800 19790809
GI



CO_2CH_2Ph I

AB Polymers derived from 4-alkoxycarbonyl-2-oxetanone or its derivs. are useful as materials for absorbable sutures. Thus, a mixt. of 1 mol 4-benzyloxycarbonyl-2-oxetanone (I) and 0.001 mol betaine [107-43-7] was stirred 21 days at room temp. to give 55% polymer **[76653-40-2]** having mol. wt. 7000 and m.p. 80.degree..

IT **76653-40-2P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. of, for absorbable sutures)

=>

=>

=> select hit rn l18 1-8
E32 THROUGH E36 ASSIGNED

=> fil reg
FILE 'REGISTRY' ENTERED AT 16:13:32 ON 28 JAN 2004
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DICTIONARY FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6

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=> s e32-e36
1 76652-44-3/BI
(76652-44-3/RN)

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             1 76653-40-2/BI
               (76653-40-2/RN)
             1 250375-83-8/BI
               (250375-83-8/RN)
             1 191792-09-3/BI
               (191792-09-3/RN)
             1 211368-81-9/BI
               (211368-81-9/RN)
L20          5 (76652-44-3/BI OR 76653-40-2/BI OR 250375-83-8/BI OR 191792-09-3
               /BI OR 211368-81-9/BI)

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FILE 'REGISTRY' ENTERED AT 16:14:47 ON 28 JAN 2004
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STRUCTURE FILE UPDATES:   27 JAN 2004  HIGHEST RN 642407-31-6
DICTIONARY FILE UPDATES:  27 JAN 2004  HIGHEST RN 642407-31-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

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Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 16:14:50 ON 28 JAN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 28 Jan 2004  VOL 140 ISS 5
FILE LAST UPDATED: 27 Jan 2004  (20040127/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


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E37 THROUGH E45 ASSIGNED

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6
DICTIONARY FILE UPDATES: 27 JAN 2004 HIGHEST RN 642407-31-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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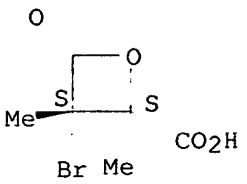
1 90730-97-5/BI
(90730-97-5/RN)
1 168037-32-9/BI
(168037-32-9/RN)
1 100494-60-8/BI
(100494-60-8/RN)
1 171866-63-0/BI
(171866-63-0/RN)
1 340829-88-1/BI
(340829-88-1/RN)
1 340829-89-2/BI
(340829-89-2/RN)
1 76432-75-2/BI
(76432-75-2/RN)
1 85548-57-8/BI
(85548-57-8/RN)
1 85548-58-9/BI
(85548-58-9/RN)
L21 9 (90730-97-5/BI OR 168037-32-9/BI OR 100494-60-8/BI OR 171866-63-0/BI OR 340829-88-1/BI OR 340829-89-2/BI OR 76432-75-2/BI OR 85548-57-8/BI OR 85548-58-9/BI)

=> d ide can 121 1-9

L21 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN **340829-89-2** REGISTRY
CN 2-Oxetanecarboxylic acid, 3-bromo-2,3-dimethyl-4-oxo-, (2R,3R)-rel- (9CI)
(CA INDEX NAME)
FS STEREOSEARCH
MF C6 H7 Br O4
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

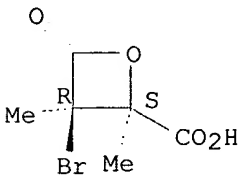
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:38867

REFERENCE 2: 135:5286

L21 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN **340829-88-1** REGISTRY
CN 2-Oxetanecarboxylic acid, 3-bromo-2,3-dimethyl-4-oxo-, (2R,3S)-rel- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C6 H7 Br O4
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

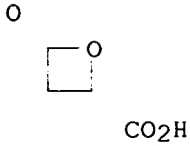
REFERENCE 1: 138:38867

REFERENCE 2: 135:5286

L21 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN **171866-63-0** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo-, polymer with 3,6-dimethyl-1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 4-oxo-2-oxetanecarboxylic acid (9CI)
MF (C6 H8 O4 . C4 H4 O4)x
CI PMS
PCT Polyester, Polyester formed
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

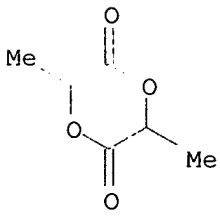
CM 1

CRN 90730-97-5
CMF C4 H4 O4



CM 2

CRN 95-96-5
CMF C6 H8 O4

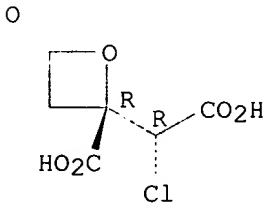


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:37707

L21 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN **168037-32-9** REGISTRY
CN threo-Pentaric acid, 3-C-carboxy-2-chloro-2,4-dideoxy-, 5,3-lactone (9CI) (CA INDEX NAME)
FS STEREOSEARCH
DR 85548-55-6
MF C6 H5 Cl O6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

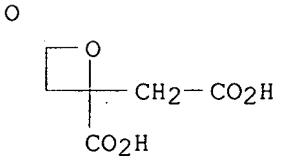
REFERENCE 1: 123:198258

REFERENCE 2: 99:38304

L21 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN **100494-60-8** REGISTRY
CN 2-Oxetaneacetic acid, 2-carboxy-4-oxo-, polymer with 1,3-diisocyanatomethylbenzene, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 2-carboxy-4-oxo-2-oxetaneacetic acid, 1,3-diisocyanatomethylbenzene, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 2-methyl-2-propenoic acid (9CI)
CN 2-Propenoic acid, 2-methyl-, polymer with 2-carboxy-4-oxo-2-oxetaneacetic acid, 1,3-diisocyanatomethylbenzene, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 2-hydroxyethyl 2-methyl-2-propenoate (9CI)
CN Benzene, 1,3-diisocyanatomethyl-, polymer with 2-carboxy-4-oxo-2-oxetaneacetic acid, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI)
CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, polymer with 2-carboxy-4-oxo-2-oxetaneacetic acid, 1,3-diisocyanatomethylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI)
MF (C9 H6 N2 O2 . C6 H10 O3 . C6 H6 O6 . C4 H6 O2 . (C3 H6 O)n H2 O)x
CI PMS
PCT Polyacrylic, Polyester, Polyester formed, Polyether, Polyurethane, Polyurethane formed
SR CA
LC STN Files: CA, CAPLUS

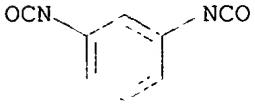
CM 1

CRN 100494-59-5
CMF C6 H6 O6



CM 2

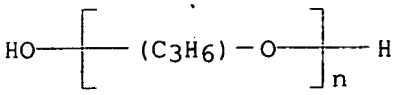
CRN 26471-62-5
CMF C9 H6 N2 O2
CCI IDS



D1—Me

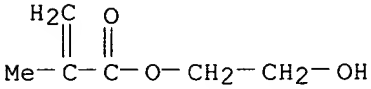
CM 3

CRN 25322-69-4
CMF (C3 H6 O)n H2 O
CCI IDS, PMS



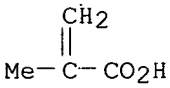
CM 4

CRN 868-77-9
CMF C6 H10 O3



CM 5

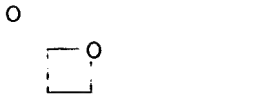
CRN 79-41-4
CMF C4 H6 O2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 104:90089

L21 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN **90730-97-5** REGISTRY
CN 2-Oxetanecarboxylic acid, 4-oxo- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Malic acid, .beta.-lactone (6CI)
OTHER NAMES:
CN 4-Oxo-2-oxetanecarboxylic acid
CN Malolactonic acid
FS 3D CONCORD
DR 137257-52-4
MF C4 H4 O4
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:353339

REFERENCE 2: 133:182803

REFERENCE 3: 132:322157

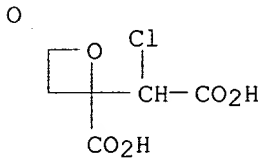
REFERENCE 4: 127:81855

REFERENCE 5: 124:344800

REFERENCE 6: 123:170439

REFERENCE 7: 54:37583

L21 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN **85548-58-9** REGISTRY
CN D-erythro-Pentaric acid, 3-C-carboxy-4-chloro-2,4-dideoxy-, 1,3-lactone (9CI) (CA INDEX NAME)
MF C6 H5 Cl O6
LC STN Files: CA, CAPLUS, USPATFULL

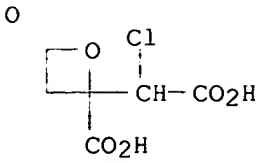


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 99:38304

L21 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN **85548-57-8** REGISTRY
CN L-threo-Pentaric acid, 3-C-carboxy-2-chloro-2,4-dideoxy-, 5,3-lactone (9CI) (CA INDEX NAME)
MF C6 H5 Cl O6
LC STN Files: CA, CAPLUS, USPATFULL

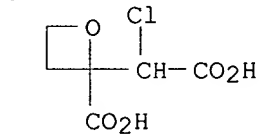


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 99:38304

L21 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2004 ACS on STN
RN **76432-75-2** REGISTRY
CN erythro-Pentaric acid, 3-C-carboxy-2-chloro-2,4-dideoxy-, 5,3-lactone (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN DL-erythro-Pentaric acid, 3-C-carboxy-2-chloro-2,4-dideoxy-, 5,3-lactone
MF C6 H5 Cl O6
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 94:83631